



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/693,736

10/24/2003

Jianwei Yuan

555255005011

2401

7590
David B. Cochran, Esq.
JONES DAY
North Point
901 Lakeside Ave
Cleveland, OH 44114

11/15/2007

EXAMINER

NGUYEN, CHAU T

ART UNIT

PAPER NUMBER

2176

MAIL DATE

DELIVERY MODE

11/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|-------------------------------|-----------------------------|--|
| Office Action Summary | Application No. 10/693,736 | Applicant(s) YUAN ET AL. | |
| | Examiner Chau Nguyen | Art Unit 2176 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,9,10,19,20,26,28,35 and 36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,9,10,19,20,26,28,35 and 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/10/2007 has been entered. Claims 1, 9-10, 19-20, 26, 28, and 35-36 are pending. Claims 2-8, 11-18, 21-25, 27, 29-34, and 37-39 are canceled.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 9-10, 19-20, 28 and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable by Reiley et al. (Reiley), US Patent Application Publication No. US 2002/0016801 and further in view of Bourbakis et al. (Bourbakis), US Patent Application Publication No. US 2003/0145279.

Art Unit: 2176

4. As to independent claims 1 and 10, Reiley discloses a computer implemented method of generating summary information for an electronic document for use by a mobile communication device, comprising:

analyzing a content structure or properties within an electronic document (page 2, paragraph [0015]: parsing a web document (electronic document) to create a data structure comprised of hierarchical organization of elements and conducting analysis of elements in the data structure);

generating document summary information includes an assemblage of a plurality of summary entries selected from the contents of the electronic document based on the analysis of the content structure or properties (page 6, paragraph [0065], page 7, paragraphs [0082]-[0083], page 8, paragraph [0089] and page 9, paragraph [0110]: after the analysis is complete, the content of the web document is passed to the transformer, which then reorganizes, summarizes, and removes information, where appropriate, from the hierarchical structure);

wherein said generating document summary information includes determining if the electronic document has a predetermined content structure and in response selecting the plurality of summary entries from the electronic document based on the predetermined content structure (page 2, paragraph [0017]: a content transformer transforms a Web document by performing an analysis of the elements of the Web document, the analysis taking into account a structural arrangement of the elements, and rearranges (summarizes) the elements as a result of the analysis to generate a hierarchical data structure that represents the web document), and generates a user

device format version of the web document based upon the hierarchical data structure; page 7, paragraph [0082]: the hierarchical structure represents a general summary or table of contents for the content of the web document (electronic document)); and

otherwise, if the electronic document has content properties, selecting the plurality of summary entries from the electronic document based on differences in the content properties (page 3, paragraphs [0038]-[0041]: the web page (electronic document) is divided into several elements including headings, paragraphs, lists, separators, graphics, tables, table item, etc...and these are content properties, and the transformer uses analysis rule to categorize the elements; page 7, paragraph [0083]: the content transformer divides the content into discrete data pieces or fragments, the data pieces or organized (summarized) according to the transformed hierarchy, i.e., discrete piece of data could be a page of text that corresponds to a level from the transformed hierarchy, wherein the text represents a portion of the original web page);

providing the document summary information for a mobile communication device (Fig. 1 and page 9, paragraphs [0110]-[0111]: when the transformer completes its process, it passes the newly-structured hierarchical structure to a device specific generator which takes the hierarchical structure and generates content that is configured to be displayed on the user device 100 (mobile communication device)).

wherein said analyzing content properties comprises identifying at least of text formatting (col. 7, paragraphs [0077]-[0078]: identifying nodes (content elements) that associated with bolded text (text formatting) or nodes associated with text of a particular

Art Unit: 2176

length (paragraph size), and identifying a group of nodes that associate with patterns of text (text formatting);

wherein said analyzing content structure comprises identifying at least one of a table of contents in the electronic document, a plurality of spreadsheet worksheets in the electronic document, and a plurality of document pages in the electronic document (page 8, paragraph [0089]: identifying the top level nodes of the content of the web page, the top level nodes would represent a summary of the contents (table of contents) of the web page).

However, Reiley does not explicitly disclose wherein said analyzing content properties comprises identifying differences in at least one of paragraph alignments or indents and paragraph sizes.

Bourbakis discloses a method for reconstructing new document from a group of old ones by analyzing paragraphs of the group to extract important statistical feature such as the size of the paragraphs in text characters (Abstract and page 2, paragraph [0024]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bourbakis and Reiley to include identifying differences in paragraph sizes in the electronic document to remove the redundant text.

Art Unit: 2176

5. As to dependent claim 9, Reiley discloses wherein the summary information is provided to the mobile communication device without the electronic document (page 6, paragraph [0074] and page 7, paragraph [0082]).

6. As to independent claim 19, Reiley discloses a computer implemented method of generating summary information for an electronic document, comprising:

identifying an electronic document for which to generate summary information having a plurality of summary entries (page 2, paragraph [0015]: parsing a web document (electronic document) to create a data structure comprised of hierarchical organization of elements and conducting analysis of elements in the data structure; page 6, paragraph [0065], page 7, paragraphs [0082]-[0083], page 8, paragraph [0089] and page 9, paragraph [0110]: after the analysis is complete, the content of the web document is passed to the transformer, which then reorganizes, summarizes, and removes information, where appropriate, from the hierarchical structure);

in the generation of the summary information:

if the electronic document has a predetermined content structure, selecting the plurality of summary entries from the electronic document based on the predetermined content structure (page 7, paragraph [0082]: the hierarchical structure represents a general summary or table of contents for the content of the web document (electronic document)); and

otherwise, if the electronic document has content properties, selecting the plurality of summary entries from the electronic document based on differences

in the content properties (page 3, paragraphs [0038]-[0041]: the web page (electronic document) is divided into several elements including headings, paragraphs, lists, separators, graphics, tables, table item, etc...and these are content properties, and the transformer uses analysis rule to categorize the elements).

wherein said analyzing content properties comprises identifying at least of text formatting (col. 7, paragraphs [0077]-[0078]: identifying nodes (content elements) that associated with bolded text (text formatting) or nodes associated with text of a particular length (paragraph size), and identifying a group of nodes that associate with patterns of text (text formatting);

wherein said analyzing content structure comprises identifying at least one of a table of contents in the electronic document, a plurality of spreadsheet worksheets in the electronic document, and a plurality of document pages in the electronic document (page 8, paragraph [0089]: identifying the top level nodes of the content of the web page, the top level nodes would represent a summary of the contents (table of contents) of the web page).

However, Reiley does not explicitly disclose wherein said analyzing content properties comprises identifying differences in at least one of paragraph alignments or indents and paragraph sizes.

Bourbakis discloses a method for reconstructing new document from a group of old ones by analyzing paragraphs of the group to extract important statistical feature

such as the size of the paragraphs in text characters (Abstract and page 2, paragraph [0024]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bourbakis and Reiley to include identifying differences in paragraph sizes in the electronic document to remove the redundant text.

7. As to dependent claim 20, Reiley discloses providing the summary information in response to a request for the electronic document by a mobile communication device (Reiley, Fig. 1 and page 9, paragraphs [0110]-[0111]: when the transformer completes its process, it passes the newly-structured hierarchical structure to a device specific generator which takes the hierarchical structure and generates content that is configured to be displayed on the user device 100 (mobile communication device)).

8. As to independent claim 28, Reiley discloses a server for generating summary information for electronic documents, comprising:

a structured document summarization process which generates summary information by selecting a plurality of summary entries from an electronic document based on a predetermined content structure identified in the electronic document (page 2, paragraph [0015]: parsing a web document (electronic document) to create a data structure comprised of hierarchical organization of elements and conducting analysis of elements in the data structure; page 6, paragraph [0065], page 7, paragraphs [0082]-

Art Unit: 2176

[0083], page 8, paragraph [0089] and page 9, paragraph [0110]: after the analysis is complete, the content of the web document is passed to the transformer, which then reorganizes, summarizes, and removes information, where appropriate, from the hierarchical structure); and

a formatted document summarization process which generates summary information by selecting a plurality of summary entries from an electronic document based on differences in content formatting identified in the electronic document (page 3, paragraphs [0038]-[0041]: the web page (electronic document) is divided into several elements including headings, paragraphs, lists, separators, graphics, tables, table item, etc...and these are content properties, and the transformer uses analysis rule to categorize the elements).

wherein said analyzing content properties comprises identifying at least of text formatting (col. 7, paragraphs [0077]-[0078]: identifying nodes (content elements) that associated with bolded text (text formatting) or nodes associated with text of a particular length (paragraph size), and identifying a group of nodes that associate with patterns of text (text formatting);

wherein said analyzing content structure comprises identifying at least one of a table of contents in the electronic document, a plurality of spreadsheet worksheets in the electronic document, and a plurality of document pages in the electronic document (page 8, paragraph [0089]: identifying the top level nodes of the content of the web page, the top level nodes would represent a summary of the contents (table of contents) of the web page).

However, Reiley does not explicitly disclose wherein said analyzing content properties comprises identifying differences in at least one of paragraph alignments or indents and paragraph sizes.

Bourbakis discloses a method for reconstructing new document from a group of old ones by analyzing paragraphs of the group to extract important statistical feature such as the size of the paragraphs in text characters (Abstract and page 2, paragraph [0024]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bourbakis and Reiley to include identifying differences in paragraph sizes in the electronic document to remove the redundant text.

9. As to independent claim 35, Reiley discloses a system which facilitates the communication of summary information for electronic documents to mobile communication device, comprising:

a server having a structured document summarization process which generates summary information by selecting a plurality of summary entries from an electronic document based on a predetermined content structure identified in the electronic document (page 2, paragraph [0015]; parsing a web document (electronic document) to create a data structure comprised of hierarchical organization of elements and conducting analysis of elements in the data structure; page 6, paragraph [0065], page 7, paragraphs [0082]-[0083], page 8, paragraph [0089] and page 9, paragraph [0110];

Art Unit: 2176

after the analysis is complete, the content of the web document is passed to the transformer, which then reorganizes, summarizes, and removes information, where appropriate, from the hierarchical structure); and having a formatted document summarization process which generates summary information by selecting a plurality of summary entries from an electronic document based on differences in content formatting identified in the electronic document (page 3, paragraphs [0038]-[0041]: the web page (electronic document) is divided into several elements including headings, paragraphs, lists, separators, graphics, tables, table item, etc...and these are content properties, and the transformer uses analysis rule to categorize the elements; page 7, paragraph [0083]: the content transformer divides the content into discrete data pieces or fragments, the data pieces or organized (summarized) according to the transformed hierarchy, i.e., discrete piece of data could be a page of text that corresponds to a level from the transformed hierarchy, wherein the text represents a portion of the original web page); and

a wireless communication network which communicates the summary information to a mobile communication device in response to a request for the electronic document (Fig. 1 and page 9, paragraphs [0110]-[0111]: when the transformer completes its process, it passes the newly-structured hierarchical structure to a device specific generator which takes the hierarchical structure and generates content that is configured to be displayed on the user device 100 (mobile communication device)).

wherein said analyzing content properties comprises identifying at least of text formatting (col. 7, paragraphs [0077]-[0078]: identifying nodes (content elements) that

Art Unit: 2176

associated with bolded text (text formatting) or nodes associated with text of a particular length (paragraph size), and identifying a group of nodes that associate with patterns of text (text formatting);

wherein said analyzing content structure comprises identifying at least one of a table of contents in the electronic document, a plurality of spreadsheet worksheets in the electronic document, and a plurality of document pages in the electronic document (page 8, paragraph [0089]: identifying the top level nodes of the content of the web page, the top level nodes would represent a summary of the contents (table of contents) of the web page).

However, Reiley does not explicitly disclose wherein said analyzing content properties comprises identifying differences in at least one of paragraph alignments or indents and paragraph sizes.

Bourbakis discloses a method for reconstructing new document from a group of old ones by analyzing paragraphs of the group to extract important statistical feature such as the size of the paragraphs in text characters (Abstract and page 2, paragraph [0024]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bourbakis and Reiley to include identifying differences in paragraph sizes in the electronic document to remove the redundant text.

Art Unit: 2176

10. As to dependent claim 36, Reiley discloses a mobile communication device which receives the summary information in response to the request for the electronic document (Fig. 4 and page 7, paragraph [0082]).

11. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reiley and Bourbakis as applied to claims 1, 9-10, 19-20, 28, and 35-36 above, and further in view of Whitledge et al. (Whitledge), US Patent No. 6,925,595.

12. As to dependent claims 26, Reiley and Bourbakis do not explicitly disclose wherein the act of analyzing the content structure or properties comprises analyzing at least one of text font names, text font sizes, text font weights, and text font styles in the electronic document.

Whitledge discloses converting electronic document for a PDA, the PDA display has less than SuperVGA resolution and is grayscale, the display font for the text displayed has been changed to Arial (col. 23, lines 1-29 and Figures 8A&8B).

Since Whitledge teaches a method and system for converting electronic data to display on a user device such as hand-held, wireless phone, PDA or other device, which is similar to the system for formatting network content into a device specific format (mobile phone) of Reiley and Bourbakis, thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Whitledge and Reiley and Bourbakis to include the act of analyzing the content structure or properties comprises analyzing at least one of text font names, text font

sizes, text font weights, and text font styles in the electronic document for the purpose of providing content conversion application to convert electronic documents to match the capabilities of a user device or the preferences of a user.

Response to Arguments

In the remarks, Applicant(s) argued in substance that

A) The prior art does not disclose “analyzing content properties comprises identifying differences in at least one of text formatting, paragraph alignments or indents, and paragraph sizes.”

In reply to argument A, since the claim limitation include “at least one of ...”, therefore the limitation “analyzing content properties comprises identifying differences in at least one of text formatting, paragraph alignments or indents, and paragraph sizes” is interpreted that analyzing content properties comprises identifying differences in text formatting, or paragraph alignments or indents, or paragraph sizes or any combination of these.

In this case, Reiley discloses wherein said analyzing content properties comprises identifying at least of text formatting (col. 7, paragraphs [0077]-[0078]: identifying nodes (content elements) that associated with bolded text (text formatting) or nodes associated with text of a particular length (paragraph size), and identifying a group of nodes that associate with patterns of text (text formatting);

However, Reiley does not explicitly disclose wherein said analyzing content properties comprises identifying differences in paragraph sizes.

Bourbakis discloses a method for reconstructing new document from a group of old ones by analyzing paragraphs of the group to extract important statistical feature such as the size of the paragraphs in text characters (Abstract and page 2, paragraph [0024]).

B) There is no teaching of “selecting the plurality of summary entries from the electronic document based on differences in the content properties.”

Reiley discloses in page 3, paragraphs [0038]-[0041]: the web page (electronic document) is divided into several elements including headings, paragraphs, lists, separators, graphics, tables, table item, etc...and these are content properties, and the transformer uses analysis rule to categorize the elements; page 7, paragraph [0083]: the content transformer divides the content into discrete data pieces or fragments, the data pieces or organized (summarized) according to the transformed hierarchy, i.e., discrete piece of data could be a page of text that corresponds to a level from the transformed hierarchy, wherein the text represents a portion of the original web page. Reiley further discloses the content transformer may already have a transformed version of the content stored in a memory, in which case transformation is not necessary and the content transformer simply retrieves or selects the transformed content from the memory (page 5, paragraph [0056]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau Nguyen whose telephone number is (571) 272-4092. The Examiner can normally be reached on Monday-Friday from 8:30 am to 5:30 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Doug Hutton, can be reached at (571) 272-4137.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. On July 15, 2005, the Central Facsimile (FAX) Number will change from 703-872-9306 to 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chau Nguyen
Patent Examiner
Art Unit 2176

/Doug Hutton/
Doug Hutton
Supervisory Primary Examiner
Technology Center 2100